

Clostridioides difficile guidance

The information below is largely based on National Institute for Health and Care Excellence (NICE) [NG199 Clostridioides difficile infection: antimicrobial prescribing](#) (July 2021) but has been refined with local specialist input and Devon specialist input.

Treating suspected or confirmed clostridioides difficile infection

For people with suspected or confirmed clostridioides difficile (C. difficile) infection, assess:

- whether it is a first or further episode (relapse or recurrence) of C. difficile infection
- the severity of C. difficile infection
- individual factors such as age, frailty or comorbidities that may affect the risk of complications or recurrence

Review existing antibiotic treatment and stop it unless essential. If an antibiotic is still essential, discuss with microbiologist about possible alternative treatments to lower risk of recurrence.

Do not delay initiation of treatment for C. difficile. If strong clinical suspicion it may be appropriate to start treatment whilst waiting for result of sample and reassess if result is negative. Review clinical response regularly (daily) and if deterioration discuss with microbiology.

Review the need to continue any treatment with:

- proton pump inhibitors
- other medicines with gastrointestinal activity or adverse such as laxatives
- medicines that may cause problems if people are dehydrated, such as non-steroidal anti-inflammatory drugs (NSAIDs), angiotensin-converting enzyme inhibitors, angiotensin-2 receptor antagonists and diuretics

Advise all people with suspected or confirmed C. difficile infection about:

- drinking enough fluids to avoid dehydration
- preventing the spread of infection
- seeking medical help if symptoms worsen rapidly or significantly at any time and
- avoiding the use of antimotility drugs (such as loperamide) to treat diarrhoeal symptoms

Patients with severe or life-threatening infection should be urgently referred to hospital. Signs include:

- white cell count (WCC) greater than 15×10^9 per litre
- acutely increased serum creatinine concentration (greater than 50% increase above baseline)
- a temperature higher than 38.5 °C
- abdominal signs suggesting evidence of severe colitis
- hypotension
- signs or symptoms suggesting partial or complete ileus or toxic megacolon

Consider referring people in the community to hospital if they could be at high risk of complications or recurrence because of individual factors such as age, frailty, or comorbidities.

If underlying inflammatory bowel disease discuss with gastroenterologist. Systemic steroids use is associated with poorer outcomes of *C. difficile* disease. Remember that signs of intra-abdominal perforation may be masked by systemic steroids.

First episode of mild, moderate, or severe clostridioides difficile infection

First line antibiotic

First episode, any severity:

- Vancomycin 125mg four times a day for 10 days (adult, children less than 18 years refer to [British National Formulary \(BNF\) for children](#))

For those unable to swallow capsules, alternative oral formulations may be available (do not use the parenteral route), seek specialist advice.

Second line antibiotic

If Vancomycin is ineffective:

- Fidaxomicin 200mg twice a day for 10 days (seek prompt specialist advice).

When considering antibiotic treatment with vancomycin or fidaxomicin in primary care, it may be appropriate to contact community pharmacy to ensure supply is available within an adequate timeframe.

Vancomycin 125mg capsules are included in the 2021 to 2022 NHS England south west enhanced service for the availability of specialist medicines and should be available from participating community pharmacies. Please note this is an enhanced service that is not available from all community pharmacies. A list of the pharmacies signed up to this service is available on the [NHS England website](#). Please note the

list on the NHS England website is under review (Boots St. Ives is no longer delivering this service).

Fidaxomicin is a high-cost medication, please consider seeking microbiology advice. Community pharmacies may obtain stock by calling Astellas Pharma Ltd. 02033798721. Stock is delivered by Alliance Healthcare.

If first and second line antibiotics are ineffective discuss with gastroenterologists.

Use clinical judgement to determine whether antibiotic treatment for *C. difficile* infection is ineffective. This is not usually possible to determine until day 7 because diarrhoea may take 1 to 2 weeks to resolve.

Metronidazole

If oral vancomycin is temporarily unavailable, or there will be a greater than 24 hour delay in starting, bridge the gap with metronidazole 400mg three times a day (adult) and change to vancomycin when available. Children (aged less than 18 years): refer to [BNF for children](#).

Further episodes of *C. difficile* infection (relapses or recurrent)

Relapse

Antibiotic for a further episode of *C. difficile* infection within 12 weeks of symptom resolution (relapse):

- Fidaxomicin 200mg twice a day for 10 days. Consider seeking prompt specialist advice.

Recurrence

Antibiotics for a further episode of *C. difficile* infection more than 12 weeks after symptom resolution (recurrence):

- Vancomycin 125mg four times a day for 10 days or
- Fidaxomicin 200mg twice a day for 10 days. Consider seeking prompt specialist advice

For recurrent episodes of *C. difficile* infection in adults who have had 2 or more previous episodes, refer to specialists for consideration of alternative treatments including faecal microbiota transplant.

If patient is elderly and on antibiotic treatment that cannot be discontinued, discuss with microbiologist but consider using fidaxomicin as first line treatment (patient is extremely high risk for recurrence or relapse. Use of fidaxomicin is associated with decreased risk of relapse).

Toxin result

Symptomatic *C. difficile* disease is caused by toxin. *C. difficile* may colonise without producing toxin.

Glutamate dehydrogenase (GDH) positive result with toxin negative result shows evidence of *C. difficile* colonisation but not toxin production.

When a sample produces this result the result is issued with the comment: "Evidence of *C. difficile* colonisation but not toxin production. Risk assess for *C. difficile* infection, isolate if symptomatic, review antibiotics and proton pump inhibitor, consider probiotics, stop laxative. Refer to local *C. difficile* policy for further guidance."

It is possible to have false negative toxin results since toxin is excreted intermittently. If there is high clinical suspicion the patient should start treatment and another sample should be sent to microbiology.

Some strains of *C. difficile* lack the genes necessary for toxin production. The laboratory may confirm the presence of toxigenic *C. difficile* (*C. difficile* capable of toxin production) by PCR if persistent GDH positive, persistent symptoms but persistently toxin negative.

In this situation a negative PCR would effectively rule out *C. difficile* as cause of the patient's symptoms, whilst a positive PCR would confirm that the *C. difficile* present could cause disease.